G023 3D shapes

Q1.

Here is a square–based pyramid.
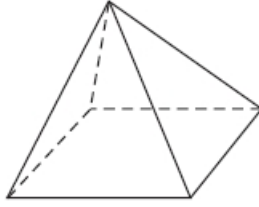
(i) How many faces does the pyramid have?

....
(1)

(ii) How many edges does the pyramid have?

....
(1)

(Total for question = 2 marks)

Q2.

(a) Write down the number of faces of a cube.

....
(1)

Here is a square-based pyramid.
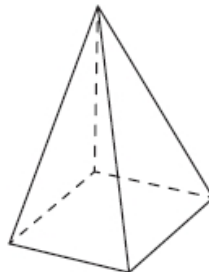
(b) Write down the number of edges.

....
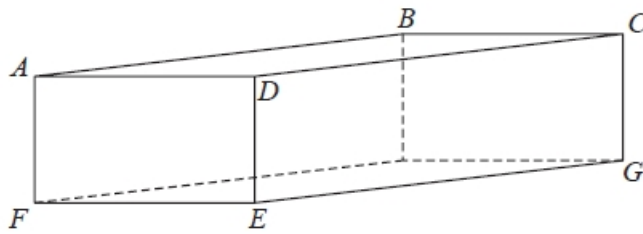**(1)**

(Total for question = 2 marks)

Q3.

Here is a triangle *ABC*.
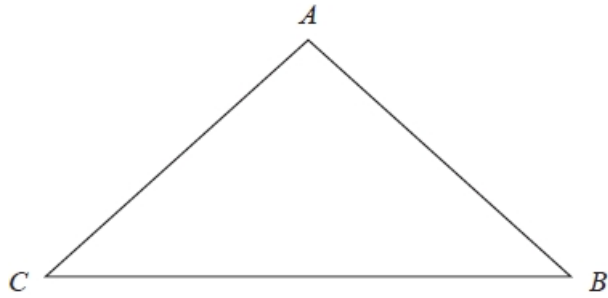
(a) Mark, with the letter *y*, the angle *CBA*.

(1)

Here is a cuboid.

Some of the vertices are labelled.

(b) Shade in the face *CDEG*.

(1)

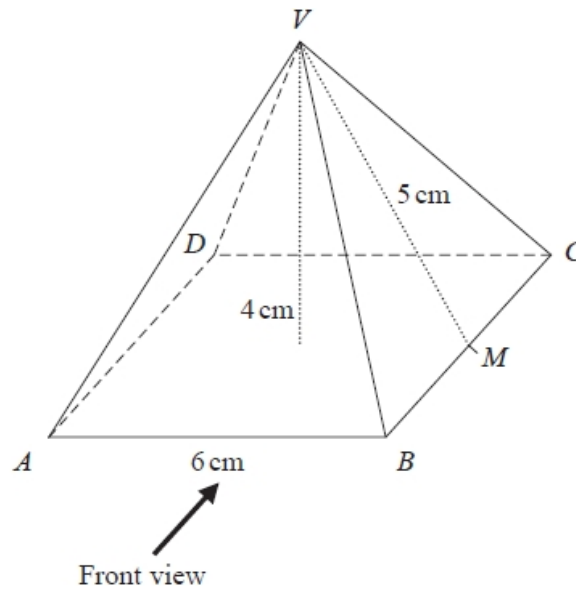(c) How many edges has a cuboid?

....

(1)

(Total for question is 3 marks)

Q4.

Here is a solid square-based pyramid, *VABCD*.

The base of the pyramid is a square of side 6 cm.
The height of the pyramid is 4 cm.
M is the midpoint of *BC* and *VM* = 5

(a) Draw an accurate front elevation of the pyramid from the direction of the arrow.
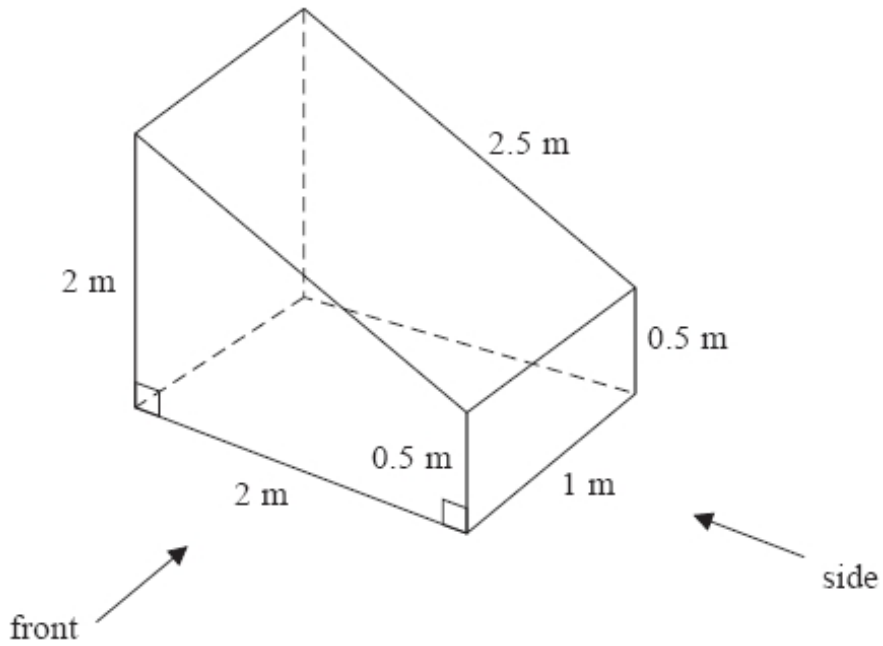

(2)

(b) Work out the total surface area of the pyramid.

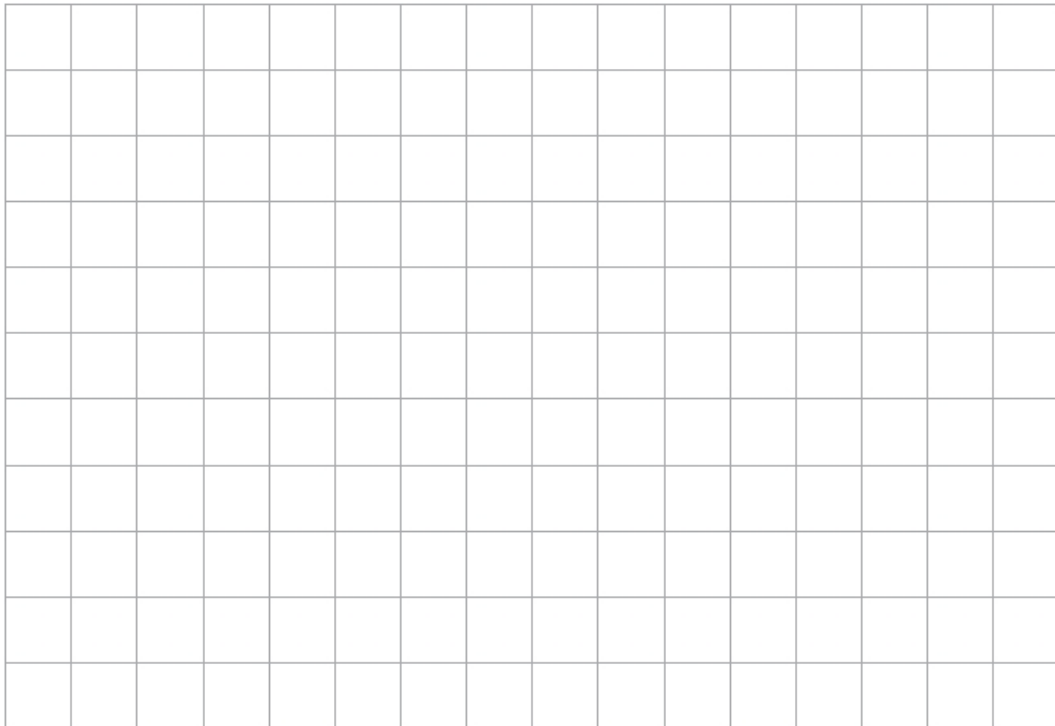..

(4)

(Total for question = 6 marks)

Q5.

The diagram shows a prism with a cross section in the shape of a trapezium.

On the centimetre grid below, draw the front elevation and the side elevation of the prism.
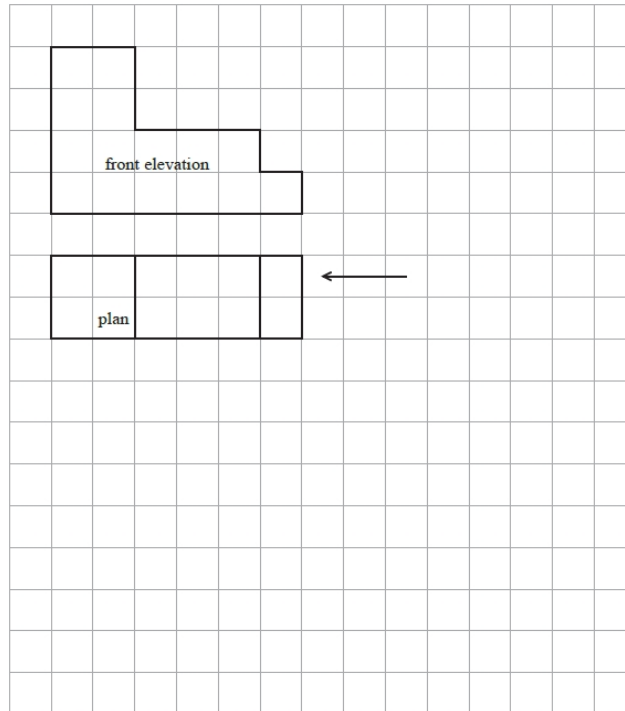Use a scale of 2 cm to 1 m.

(Total for question = 4 marks)

Q6.

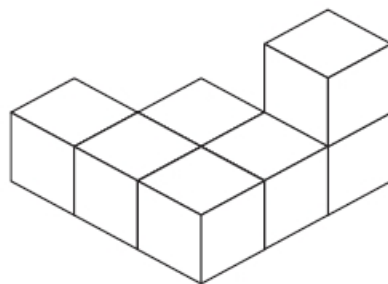The front elevation and plan of a solid are shown on the grid.

On the grid, draw the side elevation from the direction of the arrow.
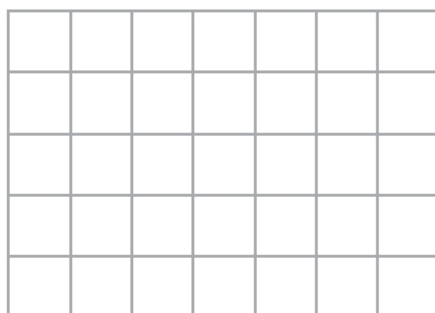

(Total for question = 2 marks)

Q7.

The diagram represents a solid made from seven centimetre cubes.
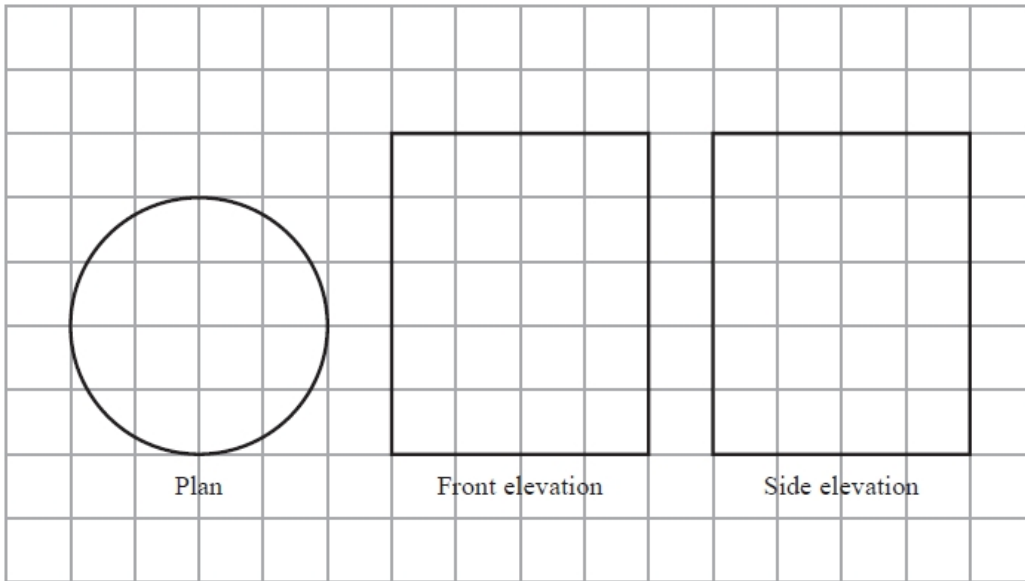

On the centimetre grid below, draw a plan of the solid.

(Total for question = 2 marks)

Q8.

The diagram shows the plan, front elevation and side elevation of a solid shape, drawn on a centimetre grid.
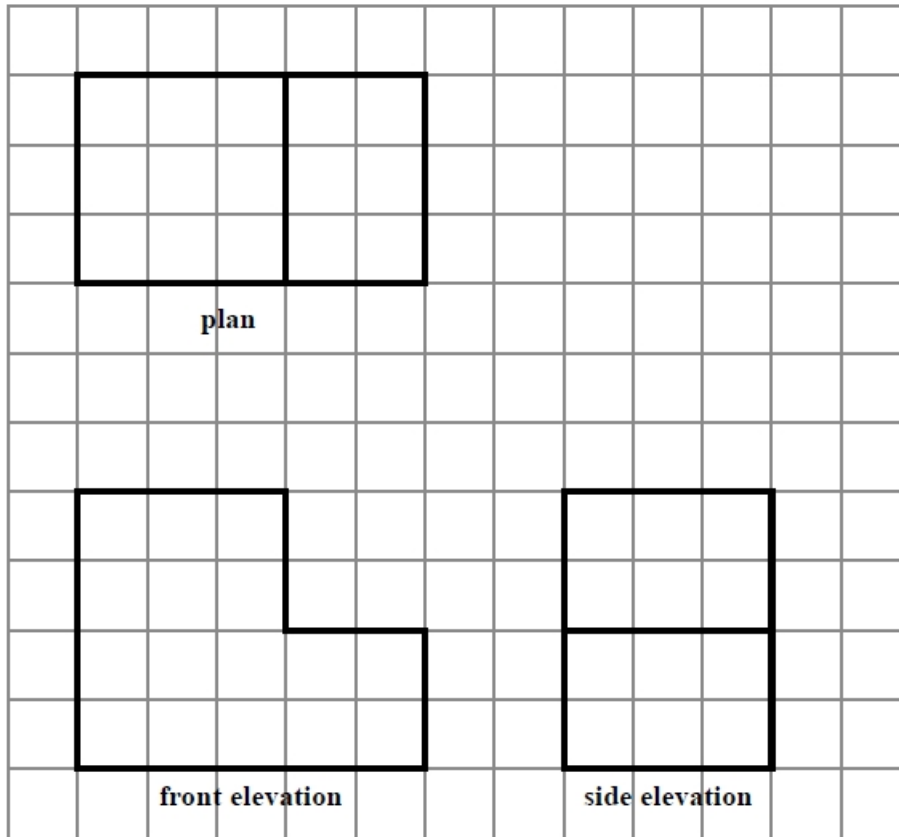

Plan   Front elevation   Side elevation

In the space below, draw a sketch of the solid shape.
Give the dimensions of the solid on your sketch.

(Total for question = 2 marks)

Q9.

The plan, front elevation and side elevation of a solid prism are drawn on a centimetre grid.

plan

front elevation

side elevation

In the space below, draw a sketch of the solid prism.
Write the dimensions of the prism on your sketch.

(Total for question = 2 marks)